

19. (New) The method of controlling flash photography according to claim 17, further comprising:

transmitting a light-magnification command signal from the main flash device to the at least one sub-flash device, the light-magnification command signal specifying a light amount of the main-flash emission; and

emitting the main-flash emission from the at least one sub-flash device in accordance with the light-magnification command signal.---

REMARKS

Upon entry of the present amendment, claim 7 will have been canceled, without prejudice and without disclaimer of the subject matter, and claims 1, 4 and 8-10 will have been amended to more clearly recite the claimed subject matter and to enhance the clarity of the claim language, as discussed below. Claim 1 will also have been amended to include the subject matter of canceled claim 7.

Furthermore, claims 14-19 will have been entered for the Examiner's consideration. Claim 14 depends from amended claim 1, reciting additional subject matter from canceled claim 7. Claim 15 is a method claim, directed to the controlling flash photography, reciting subject matter similar to amended claim 1. Claims 16-19 depend from claim 15, and include additional features of the present invention. Applicants respectfully submit that all pending claims are now in condition for allowance.

In the above-referenced Official Action, the Examiner rejected claims 1-13 under 35 U.S.C. § 102(e) as being anticipated by FUKUI et al. (U.S. Patent No. 6,404,987). The Examiner also rejected claims 1-6, 8 and 11-13 under 35 U.S.C. § 103(a) as being unpatentable over SASAKI (U.S. Patent No. 5,721,971). Applicants respectfully traverse these rejections, at least for the reasons stated below.

The basic operation of the present invention includes transmission of a pre-flash emission command wireless signal, a light-magnification command wireless signal and a main-flash emission command wireless signal. Amended claim 1 and newly submitted independent claim 15 are directed to, *inter alia*, the main-flash emission command wireless signal. In particular, when the uniform flash emission mode is designated, the sub-flash device (e.g., a slave flash unit or a external flash unit) is controlled to discharge with a designated uniform intensity flash emission over a specified duration of time. See, e.g, page 161, lines 5-13. The sub-flash device determines the duration of time through the wireless main-flash emission command signal, which, in the uniform flash emission mode, comprises consecutive flash emissions.

In an embodiment of the invention, the duration of the main-flash emission is indicated by a time interval between the consecutive flash emissions of the main-flash emission command signal. See, e.g., Fig. 6E. For example, the duration may be determined by subtracting 2 milliseconds from the time interval, and dividing the difference by 64

microseconds. Accordingly, when the time interval is 2.64 ms, for example, the duration the main-flash emission is 10 ms. See page 161, lines 5-13.

The invention thus enables reduction of wireless signal transmissions between the main flash unit and the sub-flash unit, compared to a conventional flash photography system. Fewer transmissions increases efficiency, for example, by reducing power consumption in the wireless signal transmitting operation. This especially holds true when multiple sub-flash devices are controlled by the same wireless signal transmissions. See page 162, lines 17-22.

In comparison, the system disclosed in FUKUI et al. does not determine the duration of a main-flash emission based on a time interval between control signals, transmitted from a main flash unit via consecutive low flash emissions. Rather, FUKUI et al. teaches transmitting information by designating each individual minute emission as one bit, requiring an emission pulse per desired bit of information. The Examiner is invited to compare, for example, the signal of the control-only mode of the master flash device, depicted in Fig. 11 of FUKUI et al., with the waveform of the wireless signal transmitted to a slave flash device, depicted in Fig. 6E of the present invention. FUKUI et al. results in additional transmissions, to communicate information such as emission mode, emission time, starting signal for emission, etc. See, e.g., col. 20, lines 28-36.

Accordingly, because FUKUI et al. does not disclose each and every element of Applicant's claimed invention, as recited in independent claims 1 and 15, nor would the

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claims be obvious in view of FUKUI et al., withdrawal of the rejections under 35 U.S.C., § 102(e) based on FUKUI et al. is respectfully requested. With regard to claims 2-6 and 8-14, and to claims 16-19, Applicants assert that they are allowable at least because they respectively depend from independent claims 1 and 15, which the Applicants submit have been shown to be allowable.

The Examiner relied on SASAKI to reject only claims 1-6, 8 and 11-13 under 35 U.S.C. § 103(a), not claim 7. Therefore, SASAKI clearly does not overcome the deficiencies of FUKUI et al., with respect to the subject matter of claim 7, or otherwise teach or suggest the subject matter of the pending claims.

In view of the herein contained amendments and remarks, Applicants respectfully request reconsideration and withdrawal of previously asserted rejections set forth in the Official Action of October 8, 2002, together with an indication of the allowability of all pending claims, in due course. Such action is respectfully requested and is believed to be appropriate and proper.

Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should the Examiner have any questions concerning this Reply or the present

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application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

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MARKED-UP COPY OF CLAIMS

1. (Amended) A flash photography system having a camera body, a main flash device and at least one sub-flash device, wherein said main flash device emits at least one low flash emission, serving as a main-flash emission command signal to [transmit said main-flash emission command signal to] said at least one sub-flash device, [said at least one sub-flash device emitting a flash emission in accordance with said main-flash emission command signal,] said flash photography system comprising:

a designating device [for designating] that designates a flash emission mode of a main-flash emission of said at least one sub-flash device; and

a command device [which activates] that commands said main flash device to emit said at least one low flash emission, serving as said main-flash emission command signal [to transmit said main-flash emission command signal to], said at least one sub-flash device emitting the main-flash emission in accordance with said main-flash emission command signal and [in a manner corresponding to] the designated flash emission mode;

wherein, when said designating device designates a uniform flash emission mode, said command device commands said main flash device to emit at least two low flash emissions as said main-flash emission command signal, a time interval between two of the at least two low flash emissions designating a duration of the main-flash emission; and wherein said at least one sub-flash device emits, for the designated duration, a flash

emission having a substantially uniform intensity, as said main-flash emission, in response to said main-flash emission command signal.

4. (Amended) The flash photography system according to claim 1, wherein said sub-flash device comprises a slave flash unit [which is] controlled by said main flash device [by wireless control].

8. (Amended) The flash photography system according to claim 1, wherein [said flash emission mode comprises], when said designating device designates a normal flash mode [in which said at least one sub-flash device is driven to emit a single flash emission to thereby emit said main-flash emission; and

wherein], said command device [activates] commands said main flash device to emit a single low flash emission, serving as said main-flash emission command signal [in the case where said normal flash mode is designated by said designating device]; and

wherein said at least one sub-flash device emits a single flash emission, as the main-flash emission, in response to said main-flash emission command signal.

9. (Amended) The flash photography system according to claim 1, wherein said command device [activates said main flash device to transmit said main-flash emission command signal to said at least one sub-flash device after activating] commands said main flash device to emit another at least one low flash emission to transmit another command signal, corresponding to the flash emission mode designated by said designating device, to

said at least one sub-flash device, prior to commanding said main flash device to transmit said main-flash emission command signal;

wherein each said at least one sub-flash device comprises:

a receiver [which] that receives signals [which are] transmitted from said [command device] main flash device;

a setting device [which] that sets [a] the flash emission mode [corresponding], indicated by said another command signal received by said receiver; and

a controller [which activates] that controls said at least one sub-flash device to emit said main-flash emission in said flash emission mode set by said setting device upon said receiver receiving said main-flash emission command signal [which corresponds to said flash emission mode set by said setting device].

10. (Amended) The flash photography system according to claim 9, wherein said command device [activates] commands said main flash device to transmit [said] a pre-flash emission command signal, a light-magnification command signal, and said main-flash emission command signal to said at least one sub-flash device successively, in that order, to control [a flash emission of] said at least one sub-flash device;

wherein said pre-flash emission command signal commands said at least one sub-flash device to [start emitting] emit a preliminary flash emission before said main-flash emission; and

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wherein said light-magnification command signal specifies a light amount of said main flash emission of said at least one sub-flash device.